Appendix C2

Minutes from Public Meetings

Jemez y Sangre Regional Water Plan
Public Meeting
Velarde Elementary School
February 1, 2001

Facilitator/Recorder: Lucy Moore

Presenter: Ed Moreno

Welcome: Elmer Salazar, co-chair of the Jemez y Sangre Water Planning Council, welcomed the group of 20 citizens to the meeting, and thanked them for taking the time to listen, learn and participate in the discussion. He emphasized the importance of water planning, and said it is the only way to protect our water resources for the future, to be sure that they will be here when we need them.

Presentation of Information: Ed Moreno, consultant to the Jemez y Sangre Water Planning Council, presented a summary of information collected to date by the council and provided by consultants. The data included water supplies and use categories for the region as a whole, and for the Velarde sub-basin, as well as population projections. Copies of the overheads were included in the participant packets.

Discussion: Lucy Moore introduced herself and asked the group to introduce themselves. She thanked participants for coming, and asked them to focus on four questions:

- What comments, corrections, or questions do you have about the presentation?
- What planning efforts or information sources in your sub-basin should the planning council know about?
- What are your community's values related to water, the top priorities for the use of water, that you want the planning council to include in the plan?
- What role would you like to play in the water planning effort? The council is recruiting interested people to serve on a subcommittee to develop alternatives, or options, that will insure water availability in the future.

Comments on the Presentation:

- *Population Figures:*
  - methodology seems unsophisticated, using a straight line projection, instead of multiple regression
  - projections are too low for this sub-basin

- *Absence of representation of industrial water use:*
  - mica mill, and other large users, don't seem to appear on charts
  - mill diverts 584 acre feet, and depletes 70 af; has well 440 feet deep

- need to plan for some industry/commercial uses in future for jobs

- *Figures related to irrigated land and agricultural use:*
  - need to reconcile big differences among sources; in the meantime, a 20% increase to the highest figure (round up to 6,000 acres) will be reasonable for discussion purposes
  - need to plan for potential crops that might use more water than current ones
  - need to include Pueblo use of water from local ditches
  - need to protect privacy of acequia users' data
  - metering is controversial

- *Assumptions behind the plan:*
  - should not assume the cities will grow and agricultural will shrink
  - should reflect constraints of water availability
  - consider history, culture and tradition

Local Planning Efforts and Sources of Information:

- Rio Arriba County Agricultural Land Ordinance
- Velarde Mutual Domestic water board considering restrictions to conserve water
- Information from individuals, interview local irrigators for agriculture figures
- Office of the State Engineer, Tierra Amarilla, records on cubic feet per second water flows to acequias
- UNM historical aerial photo files
- Wastewater Steering Committee, plans for treatment plant near San Juan and Chamita
- Experiences and growth management models in other places, in New Mexico and Arizona
- Meeting on Discharge Permit from Mica Mill, February 8, Onate Center, 6 pm.

Community Values and Priorities of Water Use:

- Preservation of agricultural land
  - important not to decrease amount

- Importance of culture, history and tradition
  - will be difficult to fit into data models, but must be considered

- Water used here should stay within the sub-basin

- Future employment opportunities for next generation; some industry, but not too much

- Water quality crucial to health and welfare of community; impacts quantity

- Freedom to use private property as wish, to develop, irrigate, or build house

- Aesthetic value of maintaining bosque and biodiversity
  - dependence on irrigation to keep bosque healthy

- Community water systems for communities not now served, like Lyden

- Preservation of BLM land, not privatize

- Wastewater treatment

Potential Solutions:

- Water Bank – to capitalize on surplus water, especially during winter
- Conservation measures – Velarde Mutual Domestic may adopt restrictions
- More community wells

Water Planning Process and Local Participation:

- Need to include more acequia voices

Jemez y Sangre Regional Water Plan
Public Meeting
Hilltop House, Los Alamos
February 7, 2001

Facilitator/Recorder: Lucy Moore, with help from Dana Bahar

Presenters: Ed Moreno, Jemez y Sangre Water Planning Council
Tim Glasco, Los Alamos County
Steve Hanson, LANL

Welcome: Tim Glasco, Los Alamos County Water Utility, welcomed the group of 30 citizens to the meeting, and thanked them for taking the time to listen, learn and participate in the discussion.

Presentation of Information:

Ed Moreno, consultant to the Jemez y Sangre Water Planning Council, presented a summary of information collected to date by the council and provided by consultants. The data included water supplies and use categories for the region as a whole, and for the Velarde sub-basin, as well as population projections. Copies of the overheads were included in the participant packets.

Tim Glasco, Los Alamos County water utility, presented information on water supplies for the county. Water is supplied from three well fields, the Guaje and the Otowi, which are relatively new, and the Pajarito, which may last 20 more years. Although water supplies are adequate, power is needed to pump and distribute the water, making consumers vulnerable to power shortages. Aquifer test wells show a drawdown of about one foot per year; it is possible that this drawdown is stabilizing. These wells are also tested for perchlorate, tritium, high explosives, and strontium 90. Levels detected are far below standards. (Standards do not exist for perchlorate.) Arsenic has been detected in one of the municipal wells in the 9-11 mg/l range, within acceptable levels. County water rights are 5,430 af/year; to date, there seems no danger in exceeding this right. Los Alamos has a contract for 1,200 af from the San Juan-Chama diversion, although there are questions about whether or not it will be available if the County is ready to use it. Daily per person consumption is Los Alamos is 150 gallons.

Steve Hanson, from LANL, said that the Labs are aggessively pursuing conservation measures to reduce their water consumption. Currently, they use 1,500 af/year, 58% of which is used in cooling towers. An efficiency study reveals that it may be possible, through increase in cycles of concentration, to reduce the cooling tower use by 326 af/year. The Labs are also looking at recycling within the system, potential re-use of County water, sustainable design, water-saving fixtures, and appropriate vegetation. They hope to achieve 40-50% total savings in their water

consumption.
Discussion: Lucy Moore introduced herself and asked the group to introduce themselves. She thanked participants for coming, and asked them to focus on four questions:

- What comments, corrections, or questions do you have about the presentation?
- What planning efforts or information sources in your sub-basin should the planning council know about?
- What are your community's values related to water, the top priorities for the use of water, that you want the planning council to include in the plan?
- What potential solutions are there to meet needs of the future?

Comments on the Presentations:

- *Assumptions behind the plan:*
  - appears parochial
  - don't assume growth is inevitable
  - include goal of decreasing demand, not just meeting demand
  - inappropriate and unfair to depend on water from another sub-basin or region

- *New Kind of Planning Needed:*
  - previously in hands of civil engineers, to provide infrastructure that worked
  - bumping up against the limit of the resource
  - now, need for values, vision of future, to be part of process

- *Planners' Bias:*
  - *Journal North* quote of planner showed personal opinion, inappropriate

- *Population and Water Use Graph*
  - confusing, no hydrology
  - where does .15/af/peson/year come from?

- *San Juan Chama Water and endangered species:*
  - endangered species not a threat to SJ-Chama water; Office State Engineer must adjudicate and meter flows in the rivers.

Needed Information:

- Groundwater contamination
- Global warming projected impacts on northern NM

Community Values and Priorities of Water Use:

- *A Global View:*

- should see selves as part of a bigger region, including Southern Colorado
- we are all connected, and all water use is connected
- "My use impacts you, and vice versa." "We have to work together."
- need to take global view

- *Sustainability as a Goal*
  - both surface and groundwater
  - must live within our means
  - must conserve now
  -
- Wastewater treatment badly needed in Espanola Valley

- Instream flow should be a beneficial use, with its own water rights.

Potential Solutions:

- Conservation, sooner or later we will hit the wall
- Consider very high rates to discourage waste
- Consider shutting off, or decreasing, water supply, after certain maximum used per month
- Zoning and ordinances – more effective than rates
- Elected officials need to make courageous decisions, even if unpopular
- Office of the State Engineer reforms:
  - Adjudicate water rights
  - meter Rio Grande
  - stop unmeasured releases during the winter
  - control withdrawals by large irrigators in middle Rio Grande Valley
  - grant water rights to industry, municipal as well as irrigation districts
  - include instream flow as beneficial use
- Rapid clean up of contaminated groundwater – Espanola Valley and LANL
- Make acequias more efficient in their use of water
- Change laws and ordinances to allow re-use gray water
- Plant "what belongs here" (Cottonwood); remove what doesn't (Salt Cedar)

Jemez y Sangre Regional Water Plan
Public Meeting
El Convento - Espanola, NM
February 13, 2001

Facilitator: Lucy Moore
Recorder: Rosemary Romero
Presenter: Ed Moreno

Welcome: Moises Gonzales, Rio Arriba County Planner, welcomed the group of 10 citizens to the meeting, and thanked them for attending the meeting.

Presentation of Information: Ed Moreno, consultant to the Jemez y Sangre Water Planning Council, presented a summary of information collected to date by the council and provided by consultants. The data included water supplies and use categories for the region as a whole, and for the Santa Cruz and Santa Clara Basins, as well as population projections. Copies of the overheads were included in the participant packets.

Discussion: Lucy Moore introduced herself and Rosemary Romero and asked the group to introduce themselves. She thanked participants for coming, and asked them to focus on four questions:

- What comments, corrections, or questions do you have about the presentation?
- What planning efforts or information sources in your sub-basin should the planning council know about?
- What are your community's values related to water, the top priorities for the use of water, that you want the planning council to include in the plan?
- What role would you like to play in the water planning effort? The council is recruiting interested people to serve on a subcommittee to develop alternatives, or options that will insure water availability in the future.

Comments on the Presentation:

- It was pointed out that the Santa Clara area has two agricultural systems, the Rio Grande and Santa Clara Creek,. Moises Gonzales identified the areas served by the Rio Grande and those by Santa Clara Creek. The surface water budget will be revised to show the part of the demand on Santa Clara Creek and another portion supplied by the Rio Grande

- There is a need for more data, especially from the State Engineers Office which could help clarify the relationship between population growth and drilling of more domestic wells. The burden of growth seems to fall on domestic wells to make up the difference as indicated on the overheads.

- Planners indicated that it was very important to show the amount of irrigated land for Rio Arriba, Santa Fe and Los Alamos County. From the population projections, indications are that Santa Fe will continue to have the highest growth, while Rio Arriba holds the largest amount if irrigated agricultural lands, which should be protected. Rio Arriba should not be the "sacrificial lamb" for growth in Santa Fe.

- Projected growth in North Galisteo Basin seems to be contradictory, as this area has very large lot sizes and few people. The projected population assumptions show more people than are actually projected by Santa Fe County.

Local Planning Efforts and Sources of Information:

- Rio Arriba has adopted an Agricultural Plan as well as a Comprehensive Plan.

- La Mesilla Acequia Association is working with Senator Cisneros to sponsor a memorial that would not allow water transfers below Otowi Gauge. This would protect the approximately 550 acre feet of water in the area.

- Acequia Associations are now allowed to become political entities and as such can raise funds through taxing or other methods. Raising funds will give acequias more buying or leasing power.

- Santa Fe County has been working with traditional communities to develop their own community plans.

- Miguel Santistevan is a researcher studying the relationship between agriculture, acequias, conservation and ecology.

- Civilization Magazine (Oct/Nov 2000) notes the relationship between community's abilities to understand issues and influence solutions.

- "What about it?

Potential Solutions:

- Counties could adopt more stringent regulations on domestic well drilling than the SEO.

- Planners pointed out that there is a large disparity between domestic well users throughout the state on the amount of water that can be used by domestic wells. These figures come from the SEO and should be based on in-door use. The northern part of the state, and particularly the planning area, could help to influence the calculations in order to create more equity between areas.

- Create a water bank for lands that are not are not using their water for irrigation. This would keep the water in the area, protect water rights and ensure that the water was used.

- Instream flow could protect endangered species. However, the conflict could be that dams are then drained.

- Develop new agricultural systems that use water more efficiently.

- Develop water catchment systems and regulate the amount of water that is used to water grass.

- Solutions should be based on good political foundations and leadership.

- Suggestion for more joint planning efforts between counties such as the one that has been initiated between Santa Fe and Rio Arriba counties.

- Develop a massive educational effort to inform people about different links between use of pesticides and contamination of ground water, increased meat production which affects agricultural lands and loss of biodiversity which affects everyone.

Values and Priorities:

- Water is the life of many areas and should be protected. "Water doesn't have a price" and should be protected and kept in the communities.

- Rio Arriba County is being very active to protect and provide water for eliciting communities – drying up agriculture is not a solution.

- Using precious resources for golf courses is not acceptable, and all communities should be more careful about using up resources that affect so many people.

- This beautiful area should be protected for future generations – running water has incredible value beyond dollars. This is not the moon, this is not about just the supplies that people need to survive, it is about a much bigger picture. People need to acknowledge that they are part of a larger system and be aware of the amount of water that is being taken out of the system and not replaced.

- Everyone should be responsible for working with the legislature to ensure that bills that are passed are good for everyone and not just for a particular area.

Jemez y Sangre Regional Water Plan
Public Meeting
Tesuque Elementary School
February 15, 2001

Facilitator: Rosemary Romero
Recorder: Lucy Moore
Presenters: Ed Moreno, Jemez y Sangre Water Planning Council

Welcome: Francis West, Jemez y Sangre Water Planning Council member, welcomed the group and thanked them for taking the time to participate in this important process.

Presentation of Information:

Ed Moreno, consultant to the Jemez y Sangre Water Planning Council, presented a summary of information collected to date by the council and provided by consultants. The data included water supplies, use categories and population projections for the region as a whole, and for the Tesuque sub-basin. Copies of the overheads were included in the participant packets.

Discussion: Rosemary Romero introduced herself and asked the group to introduce themselves. She thanked participants for coming, and asked them to focus on four questions:

- What comments, corrections, or questions do you have about the presentation?
- What planning efforts or information sources in your sub-basin should the planning council know about?
- What are your community's values related to water, the top priorities for the use of water, that you want the planning council to include in the plan?
- What potential solutions are there to meet needs of the future?

She also encouraged anyone to participate in the council meetings, held the second Monday of every month at the Northern New Mexico Community College, 3 - 6 pm. The Council is recruiting interested citizens to serve on a subcommittee which will develop alternatives for meeting future needs in the region. Anyone wanting to contribute to this effort should contact Amy Lewis, 954-7123.

Comments on the Presentation:

- Population Projections for Tesuque sub-basin:
  - unrealistically high – reflecting "push out" from Santa Fe?
  - even if high – still reflects a big problem
  - should consider constraints to growth
    - Pueblo-owned lands
    - high price of land
    - should not assume same level of in-mingration

- Membership of the Council – need for acequia and Pueblo representation

Local Planning Efforts and Data:

- Brian Wilson's 1985 OSE estimates
- Traditional Community Plan, approved by Santa Fe County under Land Use Plan

Needed Information:

- Impact of latest *Aamodt* ruling on water planning
- water use data on hotels, golf courses, etc.

Community Values and Priorities of Water Use:

- Water quality
  - problem created by density of wells and septic tanks
- Preserve character of small rural communities
- Value of local farming
  - to provide high quality, local food
  - aesthetic value to the community
  - acequias a way of life to be protected
- Value of property rights – need to change the "use it or lose it" policy
- Creative re-use of water – realize we are in a desert, and the supply is finite
- Value of struggling together over water issues and finding solutions
- Importance of realizing that we are each responsible for taking care of the land and water

.

Potential Solutions:

- restrict, or at least deal with, growth
  - fear of following in footsteps of Phoenix or Scottsdale
  - must be fair in restrictions, not punish local people
  - prevent leapfrog development into the county, if city restricts
  - understand the relationship between growth and water use – which users are the large consumers?
  - understand the potential for Pueblo development
  - population growth is a world problem

- Self-imposed water conservation measures, as with Los Caminitos community
  - agreed to .29 af/person
  - fines for excess use, and eventual curtailment of water

- Gray water re-use

- Micro-flow systems, that treat and recycle both black and gray water (992-8089)
  - installed at Bishop's Lodge
  - legal, and cost about $ 8,000

- Be sure that water is not wasted – if it has to be released to preserve the water right, run it through acequias, or put it to use in some way that is beneficial

- Require re-use and conservation, through building codes and ordinances
  - reduce the use of variances to avoid codes and ordinances
  - composting toilets – like Clivus Multrum
  - "Carefree" water conditioner
    - contains no salt
    - agricultural applications increase productivity by 20-30%
    - could help golf courses conserve water

- Educate newcomers about the value of water and how to conserve – through realtors, etc.

Jemez y Sangre Regional Water Plan
Public Meeting
Sweeney Convention Center, Santa Fe
February 21, 2001

Facilitator: Rosemary Romero
Recorder: Lucy Moore
Presenters: Ed Moreno, Jemez y Sangre Water Planning Council

Welcome: Ed Moreno, writer and co-facilitator for the Jemez y Sangre Water Planning Council, welcomed the group and thanked them for taking the time to participate in this important process.

Presentation of Information:

Ed presented a summary of information collected to date by the council and provided by consultants. The data included water supplies, use categories and population projections for the region as a whole, and for the Santa Fe and Caja del Rio sub-basins. Copies of the overheads were included in the participant packets.

Discussion: Rosemary Romero introduced herself and asked the group to introduce themselves. She thanked participants for coming, and asked them to focus on four questions:

- What comments, corrections, or questions do you have about the presentation?
- What planning efforts or information sources in your sub-basin should the planning council know about?
- What are your community's values related to water, the top priorities for the use of water, that you want the planning council to include in the plan?
- What potential solutions are there to meet needs of the future?

She also encouraged anyone to participate in the council meetings, held the second Monday of every month at the Northern New Mexico Community College, 3 - 6 pm. The Council is recruiting interested citizens to serve on a subcommittee which will develop alternatives for meeting future needs in the region. Anyone wanting to contribute to this effort should contact Amy Lewis, 954-7123.

[Below are comments made during the meeting. *In italics are explanatory responses made by Water Planning Council staff.*]

Comments on the Presentation:

- Population Projections
  - Consider constraints, like Pueblo lands
    Council deliberately did not consider constraints like land ownership, water

availability, etc. in order to show what would happen without

- appears to be a "juggernaut of growth" – is there any way to stop it?
- the Council should discuss the growth issue, or run the risk of being stereotyped as no-growth
-

- Depiction of flows through Velarde and Santa Cruz
  - need to clarify legal realities – water is owed to downstream users

- Water supply
  - important to consider different uses of water, when consider amounts needed
  - consider scenarios where there is less water, like in the '50's, or years when excess water can be stored, rather than using a median figure
  - recovery time needed for aquifer to restore itself
  - relationship water rights and water supply

    Planning must be done, even in the absence of water rights data.
- Water quality
  - role of contamination in reducing water supplies – reflect in presentation

    City wells are treated so that quality in Santa Fe sub-basin is high. There are septic tank contamination problems in the Pojoaque valley which are being addressed through wastewater treatment plans.

- Information on timing
  - include in presentation information on regulatory requirements, bureaucratic schedules to show how planning and implementation might occur

- Models have range of error which should be reflected

Public Involvement Process:

- Materials distribution
  - distribute fact sheet, other key information, through newspapers, etc., so that participants can study prior to the meeting
  - put material on website, into libraries, and other forums

- Need to reach full diversity of sub-basin and region
  - use additional outreach, including surveys, appearances at local events, etc.

Needed Information:

- Total available ground water in the Santa Fe Basin – "How big is the pond?"

  This amount, which is a guess, may be meaningless because of the impracticality of using every drop.

- Systematic survey of water table, regionally and by sub-basin

- Information on the impact to the groundwater of drawing off the top

- Information on the various water uses in the region – who are the biggest users? where could the greatest benefit be gained?
  City of Santa Fe, planning department, has figures for water consumption by use, ie. hotel rooms, etc.

- What are the "big ticket items" for water savings? need for a cost benefit analysis of various conservation options

- Compact requirements that might impact water conservation efforts

- Definitions of "adequate" and "reliable"

- Examples of water conservation and growth management elsewhere, including East Bay in California, Albuquerque, NYC, and London, as well as other arid regions in the world

Community Values and Priorities of Water Use:

- Value of open dialogue on growth issues, avoid stereotyped battle between growth and no-growth

- Potential to become a model of wise water management and conservation

- Must provide an adequate and reliable water supply

- Emphasize demand reduction rather than supply increase

- Protect characteristics of area, including agriculture and acequias

- Help farmers to conserve, provide incentives, not disincentives

- No one wants to conserve if that conserved water permits uses that are not in our interest

Potential Solutions:

- Must have cooperation and coordination of city and county, on both land use and water issues

- Increase security of San Juan Chama water supply through in perpetuity agreement

- Increase supplies with check dams on arroyos, targeted plantings to slow down stormwater runoff, increase percolation into groundwater, and add moisture and

aesthetics to the area

- Use effluent to its maximum benefit – return flow credit, or re-use

- Become a model for reduced demand and consumption
  - household audits in NYC reduced consumption by 29% (Scientific American, Feb)
    call Sangre de Cristo water company for household audit
  - use our ingenuity
  - use effluent for golf courses
  - city policies and ordinances to encourage and educate, not mandate
  - meter wells
  - use gray water for irrigation
  - convert to drip irrigation
  - use cisterns to catch runoff from roofs, for landscaping, and perhaps bathing, etc.
  - use "real-turf" for recreation
  - "Do not landscape as if you are in Michigan."

- Improve inspections and enforcement to reduce contamination

- Consider solutions that are not legal today – be creative

- Moratorium on all growth

- Conjunctive use of groundwater and surface water, governed by clearly articulated water policy
  - use surface first, because it is renewable
  - use ground as back up, because it is reliable

- State Water Resources Department (as proposed in this legislative session)

Jemez y Sangre Regional Water Plan
Public Meeting
Galisteo Fire Department
March 8, 2001

Facilitator, Recorder, Presenter: Ed Moreno

Welcome: Ed Moreno welcomed the participants to the meeting, approximately six residents of the Lamy/Galisteo area. Everyone introduced themselves.

Presentation of Information: Ed Moreno, consultant to the Jemez y Sangre Water Planning Council, presented a summary of information collected to date by the council and provided by consultants. The data included water supplies and use categories for the region as a whole, and for the Santa Fe River Basin, as well as population projections. Due to the small room and low attendance, the group was walked through the material without overhead slides.

Discussion: Ed Moreno invited the group to respond to these four main topics:

- What comments, corrections, or questions do you have about the presentation?
- What planning efforts or information sources in your sub-basin should the planning council know about?
- What are your community's values related to water, the top priorities for the use of water, that you want the planning council to include in the plan?
- What role would you like to play in the water planning effort? The council is recruiting interested people to serve on a subcommittee to develop alternatives, or options that will insure water availability in the future.

Comments on the Presentation:

- Where did the precipitation data come from in the drought severity index? Is it relevant to New Mexico? The tree ring data says New Mexico data, is it particular to this region?
- On the agricultural diversions chart, do the acequia diverters receive return flow credits for what they divert?
- Quality. Regulations for quality, such as arsenic, would put a burden on smaller community systems. The water quality here is very good.
- Why was 2060 chosen as the planning horizon?
- Were community associations and organizations invited to join the Council?

Local Planning Efforts and Sources of Information

- Galisteo is at the beginning stages of a community plan. A group is organized.
- Hope the moratorium will continue until it is known whether there will be water available.
- There will be demand for water from this sub-basin from other sub-basins. We're concerned about the demand for water from Santa Fe.

- The Santa Fe City Council should stop fighting and act on water. It's been years they've been talking about San Juan Chama and other water supply issues.
- The big unknown in the Galisteo Creek area is whether Joe Miller will continue to encourage Eldorado to explore in this area for new wells. Even when the Eldorado well in the Lamy area goes dry, the wells closer to Galisteo do not.
- Planning has to be national, not just local or statewide.

Community Values and Priorities of Water Use:

- Rivers and streams need to be preserved. Fish and birds and ecosystems are important.
- We want to preserve the bucolic life: trees, birds, fish, home gardens, and learn to use water better to preserve that. Use methods like soil moisture gauges to avoid overwatering.
- Water is delivered efficiently. We send water downstream that could be used upstream.
- We need to change the way we use water.
- What is the economic cost of water? Poor people would have a harder time affording water if it was too expensive.
- There should be tax credits for poor people to install water-saving methods in their homes.
- There is no new water in this area. It's too far to pump it here from anywhere. We have no choices if the population grows, we'll be in the same boat that we're in now.
- We have to learn to live with less water. All the time, not just in drought years or drought emergencies. We have to change the way we live. How do you do it? It should be a matter of common knowledge. We have always thought about water as always there.
- You have to keep your hands on all the water you have.
- Entitlement means nothing if the water isn't there.

Potential Solutions:

- Are there ways to increase the water supply? What water that goes downstream can be increased?
- Water systems leak, pipes and delivery systems leak. Do the city and county have plans to correct leaking systems?
- When water becomes valuable enough, there will be pipelines to bring it here. A pipeline from the coast.
- Systems are available to treat wastewater and septic water to drinking standards.
- Larger cities are going to have to conserve even more, and especially collect runoff with catchment systems.
- Albuquerque is encouraging people in the foothills to install a lot of water-saving systems in their homes.
- Newcomers will have to learn to conserve.
- Stop using water for flushing and golfing. More water needs to be recycled and grey water used more.

Draft Summary of February 2001 Public Meetings
Major points raised in more than one sub-basin

Comments on Presentations:

- Population projections – inaccurate, too high, confusing
- Assumption that growth will occur – should consider constraints
- Assumption that water will come from agriculture – please don't
- Consideration of water quality issues

Public Welfare:

- Water doesn't have a price
- Keep rural character of the region
- Preserve agricultural and traditional lands in the region
- Keep sub-basin and regional water within area of origin
- Manage growth
- Link land and water issues
- Conserve for the future
- Achieve sustainable water use
- Provide adequate water supply
- Emphasize demand reduction before supply increase
- Protect water quality
- Protect aesthetic values of water uses
- Protect water uses for wildlife
- Protect private property rights, including water rights and land use decisions
- Make wise decisions based on benefit to people and environment
- Allow local decision-making
- Realize the interconnectedness of sub-basins, regions, and all species
- Realize we are all responsible – concept of community
- Importance of working together to find solutions
- See the future as longer than 40 years

Alternatives:

- Conserve – in every possible way
    - Manage growth
    - Enact ordinances, building codes, and enforce them
    - Increase rates
    - Change laws, policies to permit gray water use, cisterns, etc.
    - Change law to end "use it or lose it" policy
    - Meter wells
    - Limit wells
    - Require or encourage agricultural efficiencies
    - Encourage xeriscaping and native planting
    - Ban, limit golf courses
    - City and state office buildings should be better role models
    - Look to other places for models of conservation

- Develop education programs
- Changes in lifestyle – re-define quality of life

- Establish locally controlled water banks
- Create small check dams to capture storm water
- Develop new wells
- Extend South County water system
- Re-use effluent
- Pipe water from Estancia Basin
- Coordination between City and County in planning, both land and water
- Secure San Juan-Chama supply

Jemez y Sangre Regional Water Plan

Summary of Comments Raised at the
Public Meeting, October 3, 2002, Cerrillos Fire Station

Facilitators: Lucy Moore and Ed Moreno

Presenters: Joanne Hilton and Amy Lewis

Background: This meeting was held for the purpose of reviewing with the public the results of the alternative analysis and a Charrette held in February of 2002. At the Charrette, experts from both in the state and outside New Mexico gathered to analyze twenty-six alternatives developed by the Jemez y Sangre Regional Water Planning Council in consultation with the members of the public who served on an alternatives subcommittee. From their analysis, consultants worked with the Council to categorize the alternatives into 5 categories: 1) Protect/Restore water supplies, 2) Improve Efficiency, 3) Drought Management, 4) Reduce demand and 5) Increase Supply. The projected gap between supply and demand in the year 2060 is estimated to be 31,500 afy if the supply is not increased or the demand is not reduced. This gap could be greater if water supplies diminish or are damaged by a severe forest fire. In order to address projected gap, several scenarios were developed, each of which emphasized a different approach to meeting the future demand for water. The four scenarios focused on: 1) Conservation, 2) Growth Management, 3) Purchase water rights, and 4) Combination of demand reduction and increasing supply. All of the scenarios included the use of San Juan-Chama with return flow credits.

In addition to the presentations on the alternatives and the scenarios, those who attended this meeting were given a work sheet or Options Chart to fill out expressing a preference for how to meet the future demand. The Options Chart represented the demand/supply gap for the entire Jemez y Sangre Water Planning region in 2060. Attached is the Options Chart for each of the 4 scenarios presented and a blank Options Chart which participants were asked to fill out as a method to provide feedback. In order to develop a scenario, ten blocks, each representing 10% of the gap, were to be selected. A summary of the feedback from all of three public meetings is attached.

Finally, participants at the meeting reviewed the draft Public Welfare Statement developed from previous public meetings.

Discussion: During the evening, those present raised the following issues:

City/County Coordination: Participants asked that the regional water plan include a recommendation that the City and County of Santa Fe work together on all issues where coordination is needed. Specifically mentioned were NPDES permits for stormwater runoff, and implementation of recommendations in the water plan.

Inter-regional Coordination: Participants understood that neighboring regions are also seeking answers to longterm water needs. It will be critical, they said, to communicate and coordinate

with these potential competitors to insure that one region's solution isn't another region's problem.

Role of Human Activities: There were questions about the impact of lifestyle choices on the environment, the ecology and even the climate of the region. How we store water, what we plant, where we build can all have unforeseen impacts. A participant asked how residents could "change our ways" to cause less damage to the ecology of the area. Drought may be a factor, but should not be an excuse on which we blame our water shortages.

Water Storage: Some suggested that reservoirs are not an efficient means for storing water because of losses to evaporation. Smaller check dams or underground storage may be more efficient.

Golf Courses: Some questioned how much water is used on golf courses, and suggested that future needs of the area could be satisfied by closing golf course.

Wet Water v. Paper Rights: There was discussion about the difference between wet water and water rights. Some were concerned that purchase of water rights may result in withdrawals or transfers which are detrimental to the environment or to other needs. A participant objected to the efforts of Santa Fe County to buy water rights from Socorro County. Another was worried that the Buckman wells may be overused given the lack of knowledge of the amount of available water in the aquifer.

Sustainability: There was concern about the sustainability of the aquifer and the danger of over-pumping. Many expressed the need for a good groundwater model that would show aquifer amounts, pumping rates and recharge rates. Living sustainably is a real challenge, pointed out one participant. It is important to provide some incentives if people are expected to make needed sacrifices. Some felt that the local governments and economic forces are encouraging growth for growth's sake, and that this approach is advantageous to the wealthy and hard on the middle class.

Water Quality: A participant pointed out that any water can be made potable, if money were no object. It is important to understand how much potential drinking water is being contaminated and by what sources.

Other ways of reducing demand and increasing supplies: Group members had additional suggestions for meeting future water demands. It was suggested that removal of non-Native plants could increase surface flows. In addition, different types of grasses could be used on golf courses. Construction practices could be regulated so that drinking water is not used during building. Local government could offer incentives for the use of composting toilets. Agriculture could be reduced, although there were caveats about the resulting rise in food costs and impact on growth. The state and local governments could loosen regulations on the use of gray water. The state highway department could improve its road designs to capture water, and to use less asphalt, which requires large amounts of water in its production.

Update Presentation: Group members suggested that in future presentations consultants and the water planning council should update figures which would reflect the City's toilet ordinance, storm water control and runoff, the County's potential transfer of water rights from Socorro, and golf course water use.

[summary written by Lucy Moore. Please contact her with comments or questions. 505-820-2166, or lucymoore@nets.com]

Jemez y Sangre Regional Water Plan

Summary of Comments Raised at the
Public Meeting, October 7, 2002, El Convento, Espanola

Facilitators: Lucy Moore, Ed Moreno

Presenters: Joanne Hilton and Amy Lewis

Background: This meeting was held for the purpose of reviewing with the public the results of the alternative analysis and a Charrette held in February of 2002. At the Charrette, experts from both in the state and outside New Mexico gathered to analyze twenty-six alternatives developed by the Jemez y Sangre Regional Water Planning Council in consultation with the members of the public who served on an alternatives subcommittee. From their analysis, consultants worked with the Council to categorize the alternatives into 5 categories: 1) Protect/Restore water supplies, 2) Improve Efficiency, 3) Drought Management, 4) Reduce demand and 5) Increase Supply. The projected gap between supply and demand in the year 2060 is estimated to be 31,500 afy if the supply is not increased or the demand is not reduced. This gap could be greater if water supplies diminish or are damaged by a severe forest fire. In order to address projected gap, several scenarios were developed, each of which emphasized a different approach to meeting the future demand for water. The four scenarios focused on: 1) Conservation, 2) Growth Management, 3) Purchase water rights, and 4) Combination of demand reduction and increasing supply. All of the scenarios included the use of San Juan-Chama with return flow credits.

In addition to the presentations on the alternatives and the scenarios, those who attended this meeting were given a work sheet or Options Chart to fill out expressing a preference for how to meet the future demand. The Options Chart represented the demand/supply gap for the entire Jemez y Sangre Water Planning region in 2060. Attached is the Options Chart for each of the 4 scenarios presented and a blank Options Chart which participants were asked to fill out as a method to provide feedback. In order to develop a scenario, ten blocks, each representing 10% of the gap, were to be selected. A summary of the feedback from all of three public meetings is attached.

Finally, participants at the meeting reviewed the draft Public Welfare Statement developed from previous public meetings.

Discussion: During the evening, those present raised the following issues:

Drought Impacts: Some questioned the reliability of the San Juan-Chama water given the drought years which may lie ahead. There were also concerns about the disappearing snow pack in the Rockies, and the impact of drought on groundwater resources, since recharge comes from surface supplies. There were fears that agriculture would be the loser if the drought continues.

Alternatives Analysis: A participant asked how each of the alternatives could be analyzed in terms of benefits to the region, in terms of water supply, economy, etc. It was also suggested that

the alternatives need to include cost considerations in their implementation.

Agriculture: There were questions about how agricultural efficiencies could be measured. There was also concern that some of the water that is saved through those efficiencies may be needed by those same ditches, since deliveries now are often inadequate. Irrigators are also worried that water banking or leasing strategies may result in loss of critical mass of irrigators from a certain stream system or acequia. Such a loss could have severe impacts on the landscape, economy and culture of that area.

Otowi Gauge: The group discussed the role of the Otowi Gauge. Some felt it served as an intra-state compact, protecting those above the line from potential buyers below the line. Others suggested that this may be based on a paternalistic assumption, that no one above the line wants to sell water rights below the line. There was also recognition that regions along the Rio Grande naturally want to keep water within their jurisdictions, and that the middle Rio Grande region may not be agreeable to leasing or selling water to this region.

Public Welfare: It was suggested that "rural/wildlands character" include fish. A participant noted that water quality issues may be addressed by a variety of scales of solutions, including those being considered by the Espanola-Pojoaque Valleys Wastewater Treatment Committee.

Percent	10	20	30	40	50	60	70	80	90	100
Acre-Feet	*3150*	*6300*	*9450*	*12600*	*15750*	*18900*	*22050*	*25200*	*28350*	*31500*
Conservation	Reduce ***NEW*** indoor and outside demand by 10%	Reduce ***NEW*** indoor and outside demand by 25%	Reduce ***ALL*** outside use and ***NEW*** inside by 25%	Reduce ***ALL*** outside use by 50% and all ***NEW*** inside by 25%	Reduce ***ALL*** outside use by 70% and all ***NEW*** inside by 25%					
Growth Management	Reduce Projected Growth Rate by 10%				Reduce Projected Growth Rate by 50%					
Purchase Agricultural Water Rights Below Otowi	1,016 Acres of MRGCD (2% of Ag Land)	2,032 Acres of MRGCD (4% of Ag Land)	3,048 Acres of MRGCD (6% of Ag Land)	4,064 Acres of MRGCD (7% of Ag Land)	5,080 Acres of MRGCD (9% of Ag Land)					
Purchase Agricultural Water Rights Above Otowi	2,400 Acres (12% of JyS Ag Land)	4,850 Acres (24% of JyS Ag Land)	7,300 Acres (36% of JyS Ag Land)	9,700 Acres (49% of JyS Ag Land)	12,100 Acres (60% of JyS Ag Land)					
Allow More Domestic Wells										
Utilize San Juan-Chama Water	Utilize LA, SJ Pueblo, Espanola SJC		Return Flow Credit on all SJC		Leased & Return Flow Credit on	leased SJC				

Scenario 1 Emphasize Conservation

1/6/2003

Percent	10	20	30	40	50	60	70	80	90	100
Acre-Feet	*3150*	*6300*	*9450*	*12600*	*15750*	*18900*	*22050*	*25200*	*28350*	*31500*
Conservation	Reduce *NEW* indoor and outside demand by 10%	Reduce *NEW* indoor and outside demand by 25%	Reduce *ALL* outside use and *NEW* inside by 25%	Reduce *ALL* outside use by 50% and all *NEW* inside by 25%	Reduce *ALL* outside use by 70% and all *NEW* inside by 25%					
Growth Management	Reduce Projected Growth Rate by 10%				Reduce Projected Growth Rate by 50%					
Purchase Agricultural Water Rights Below Otowi	1,016 Acres of MRGCD (2% of Ag Land)	2,032 Acres of MRGCD (4% of Ag Land)	3,048 Acres of MRGCD (5% of Ag Land)	4,064 Acres of MRGCD (7% of Ag Land)	5,080 Acres of MRGCD (9% of Ag Land)					
Purchase Agricultural Water Rights Above Otowi	2,400 Acres (12% of JyS Ag Land)	4,850 Acres (24% of JyS Ag Land)	7,300 Acres (36% of JyS Ag Land)	9,700 Acres (49% of JyS Ag Land)	12,100 Acres (60% of JyS Ag Land)					
Allow More Domestic Wells	12,200 additional domestic wells									
Utilize San Juan-Chama Water	Utilize LA, SJ Pueblo, Espanola SJC		Return Flow Credit on all SJC		Leased & Return Flow Credit on	leased SJC				

Scenario 2 Emphasise Growth Management

1/6/2003

Percent	10	20	30	40	50	60	70	80	90	100
Acre-Feet	*3150*	*6300*	*9450*	*12600*	*15750*	*18900*	*22050*	*25200*	*28350*	*31500*
Conservation	Reduce *NEW* indoor and outside demand by 10%	Reduce *NEW* indoor and outside demand by 25%	Reduce *ALL* outside use and *NEW* inside by 25%	Reduce *ALL* outside use by 50% and all *NEW* inside by 25%	Reduce *ALL* outside use by 70% and all *NEW* inside by 25%					
Growth Management	Reduce Projected Growth Rate by 10%				Reduce Projected Growth Rate by 50%					
Purchase Agricultural Water Rights Below Otowi	1,016 Acres of MRGCD (2% of Ag Land)	2,032 Acres of MRGCD (4% of Ag Land)	3,048 Acres of MRGCD (5% of Ag Land)	4,064 Acres of MRGCD (7% of Ag Land)	5,080 Acres of MRGCD (9% of Ag Land)					
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Allow More Domestic Wells	12,200 additional domestic wells									
Utilize San Juan-Chama Water	Utilize LA, SJ Pueblo, Espanola SJC		Return Flow Credit on all SJC		Leased & Return Flow Credit on	leased SJC				

Scenario 3 Emphasize Purchasing Water Rights

1/6/2003

Percent	10	20	30	40	50	60	70	80	90	100
Acre-Feet	*3150*	*6300*	*9450*	*12600*	*15750*	*18900*	*22050*	*25200*	*28350*	*31500*
Conservation	Reduce ***NEW*** indoor and outside demand by 10%	Reduce ***NEW*** indoor and outside demand by 25%	Reduce ***ALL*** outside use and ***NEW*** inside by 25%	Reduce ***ALL*** outside use by 50% and all ***NEW*** inside by 25%	Reduce ***ALL*** outside use by 70% and all ***NEW*** inside by 25%					
Growth Management	Reduce Projected Growth Rate by 10%				Reduce Projected Growth Rate by 50%					
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Allow More Domestic Wells	12,200 additional domestic wells									
Utilize San Juan-Chama Water	Utilize LA, SJ Pueblo, Espanola SJC		Return Flow Credit on all SJC							

Scenario 4 Reduce Demand and Increase Supply from Numerous Sources

1/6/2003

Percent	10	20	30	40	50	60	70	80	90	100
Acre-Feet	*3150*	*6300*	*9450*	*12600*	*15750*	*18900*	*22050*	*25200*	*28350*	*31500*
Conservation	Reduce ***NEW*** indoor and outside demand by 10%	Reduce ***NEW*** indoor and outside demand by 25%	Reduce ***ALL*** outside use and ***NEW*** inside by 25%	Reduce ***ALL*** outside use by 50% and all ***NEW*** inside by 25%	Reduce ***ALL*** outside use by 70% and all ***NEW*** inside by 25%					
Growth Management	Reduce Projected Growth Rate by 10%				Reduce Projected Growth Rate by 50%					
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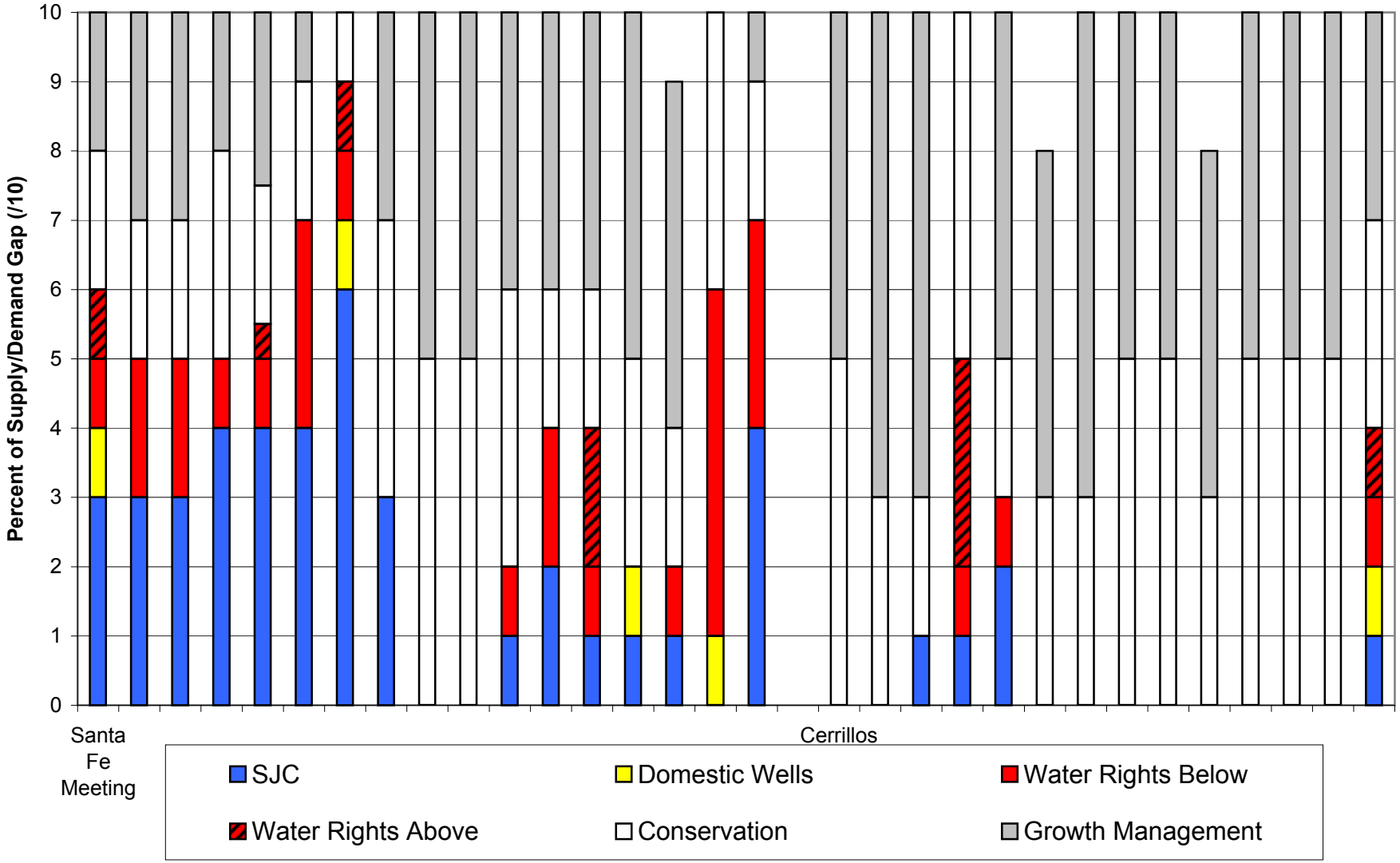
Allow More Domestic Wells	12,200 additional domestic wells									
Utilize San Juan-Chama Water	Utilize LA, SJ Pueblo, Espanola SJC		Return Flow Credit on all SJC		Leased & Return Flow Credit on	leased SJC				

Create your own scenario for making up the deficit: Select among the options to come up with 100% of the amount needed to meet the projected water demand.

1/6/2003

Public Input on Scenarios Fall 2002
Jemez y Sangre Water Planning Council



Jemez y Sangre Water Planning Council Workshop
on Critical Management Areas and Area of Origin

November 22, 2002

Radisson Hotel, Santa Fe, New Mexico

Facilitators/Recorders: Roberto Chene, Lucy Moore and Ed Moreno

Purpose, Introductions and Ground rules: Lucy welcomed the group and explained that this workshop was a result of significant conversations at the Charrette* held by the Water Planning Council last spring and at subsequent Council meetings. These conversations focused on the dilemma of protecting areas within the region from exploitation of water resources while meeting future demands in the region. Council members understand the complexity of the issues, and wanted to learn more in order to make some difficult decisions as the Regional Water Plan becomes a reality in the next few months. There was no goal to reach consensus, but rather to give the council and others the chance to explore the issues. Lucy asked that participants treat each other with respect, and be aware of limited time to speak. She asked participants to introduce themselves. An attendance sign-up sheet was provided.

Except where noted, there was no consensus among those present on the following points.

CRITICAL MANAGEMENT AREAS: Attorney Susan Kery, who had co-authored a paper for the Jemez y Sangre Regional Water Planning Council, presented information on Critical Management Areas, and the potential for their designation in the region (see paper for summary). Following the presentation, participants discussed the concept and its applicability in this region.

Problem Areas/Candidates for Critical Management Designation:

Issues of Scale: There were differences of opinion about the appropriate scale in which to consider designation. Some felt that the critical management area should be over-arching, including as broad an area as possible (region, or even entire basin, or state) in order to offer the greatest coverage. Others felt that the designation was a tool more appropriate when applied on a smaller, site-specific scale, since specific facts and conditions (hydrological, legal and political) must serve as the justification for the designation.

North Galisteo Basin/highway 14: Santa Fe County representatives explained that the County has already applied for the designation for an area in the North Galisteo Basin, bisected by Highway 14. Drying wells is the justification for the application.

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* For copies of the White Papers prepared for the Charrette, covering a wide variety of alternatives for balancing demand and supply in the future, visit the D.B. Stephens website: <www.dbstephens.com/publications>

Pueblo Actions to Protect Fragile Areas: Pueblo spokespersons offered information on the situation and response on some Pueblo lands. San Juan Pueblo has passed an indefinite moratorium on building new homes between the acequias and the river on Pueblo land, in order to protect fragile water resources. Nambe Pueblo has experienced drying springs down gradient of a newly lined irrigation ditch, suggesting a connection between surface flow and spring supply. Santa Clara Pueblo representative encouraged the Water Planning Council to consider Pueblo needs and activities during the development of the Plan.

Types of Areas Appropriate for Consideration: Participants identified several areas that might be good candidates for Critical Management designation:

- areas where wells are drying up
- areas which demonstrate contamination
- areas where surface water is being depleted
- areas with thinner aquifers
- areas which are not sustainable – raising questions about the time frame for sustainability – 10 years? 50 years? more?
- areas where there is a significant groundwater decline
- areas which are within a certain distance of a spring, or are in the source area for that spring
- areas that have suffered serious fire damage
- areas that are at risk for serious fire damage

- **Possible Restrictions or Actions to be Applied in Critical Management Areas:** Participants explored a variety of management tools which could be used to protect CMAs. No consensus was reached on any of the tools below:

- moratorium, or growth cap
- limits on transfers in and exports out of the area that would be detrimental
- land use zoning
- use of water for recharge in areas that would benefit the CMA, as in the case of a spring which could be recharged by application of water in an area outside the CMA
- No increase in diversions within the CMA
- Stringent regulation of domestic wells (existing or new) such that wells are metered and use restricted to certain amount
- Require new developments to be hooked into a community water system-no new domestic wells
- Allow replacement and supplemental wells
- Allow a certain amount of increase drawdown on nearby wells within a CMA when evaluating a water right transfer based on a certain lifetime of the aquifer
- Require water right transfers through groundwater only from within a CMA

Who will implement the restrictions, use the tools? Participants offered the following entities as those potentially responsible for managing the CMAs and administering restrictions:

- Counties
- Cities
- Pueblos
- Office of the State Engineer
- New Mexico Environment Department
- Homeowners Associations, Mutual Domestics, etc.
- Private sector, developers, water brokers, etc.
- US Forest Service

Implications

A ban on increasing existing diversions would necessitate importation of water if demand increases.

Recommendations: Those present agreed on the following two recommendations:

1) Water planners in all sectors need more accurate, more complete and current data on nitrate contamination in the region's groundwater, including amounts of contamination, sources, trends, and depth.

2) The Critical Management Area tool is worth exploring in this region. A vote was held with the following results:
   - The Council should use this tool in planning within the area, learning more about specific applications in specific areas. **14 votes**
   - More information is needed about the use of CMA as a tool, and the Council should explore whether or not it is appropriate. **11 votes**
   - The Council should not consider the use of CMA as a tool. **0 votes**

AREA OF ORIGIN: John Utton, attorney working with Susan Kery on the workshop briefing paper, and David Benavides, attorney with Northern New Mexico Legal Services, presented information on the Area of Origin concept and its applicability in this region.

The concept of Area of Origin (AOO) is that people in the area where water originates, or where the water rights have been historically utilized, have a right or a legal opportunity to maintain that water within those boundaries, as long as there are significant benefits that accrue to communities, economies, cultural preservation, or other benefits, or to prevent the harm that would result from the loss of access to that water, as defined by the area itself. David emphasized that in his view AOO protection is not about preserving an agricultural way of life – although that can be a result of AOO protection – but about empowering those within rural communities to benefit from the use of the resource. If land moves from agriculture to development, the community should lead the development so that they may receive the jobs and other benefits.

David and John cited relevant cases, including those involving Ft.Lyons, Big Thompson, and the California Owens Valley. There are clearly issues of Tribal sovereignty, property rights and market value which are also part of the whole picture. In addition, any laws regulating transfers must apply out of state as well as in state.

Ways of Protecting Area of Origin: During the discussion, several ways of protecting an area of origin were identified:

Geographic Boundary: It is possible to pass laws which forbid the movement of water out of an Area of Origin unless certain conditions are met. The law could simply prohibit the transfer of water out of the AOO. Or, the law could incorporate a spectrum of standards against which to measure the proposed transfer. The standards could be based on insuring some or all of the following:

- benefit over time for the area and community
- impact on numbers of people
- the right remains in the community
- economic activity remains in the community
- greater rural economic development occurs
- agricultural base is not eroded

Within this region, the Otowi Gauge, a measuring point required by the Rio Grande Compact, has served as a de facto protection for the area north of the gauge. Its power may be overestimated, according to some, but many are very reluctant to give it up, not seeing any more effective alternative to keep water north of the gauge.

Mutual Agreement of Entities: The group was intrigued with the potential for protecting areas of origin through the negotiation of agreements between entities. EBID and Las Cruces may serve as a model. There was discussion about what kind of entities might enter into negotiations – acequias, acequia associations, water user groups, local government – and what kind of standards [see above] might guide the negotiations. The implication of this kind of negotiation is that there are entities with responsibility and authority for managing water on behalf of others, and that these entities – one with water supplies and one needing water supplies – choose to enter into a mutually beneficial agreement. There may be structures or policies which provide incentives or disincentives for these kinds of arrangement.

Marketplace, with protection: Some advocated the marketplace as the appropriate forum for water transfers, and suggested that protections for "the little guy" could be built into transactions. For instance, mutual domestics or acequias could have the right of first refusal on sales or leases out of the basin. The free market could operate within the AOO.

Public Welfare Statement: Each regional plan must include a statement of the public values of that region. This public welfare statement, which may speak to third party impacts and

the need for equity, provides guidance to the State Engineer when making decisions about transfers.

Regional Water Plans: An individual regional water plan may include recommendations banning or restricting the export of water out of that region. This would be distinct from the Public Welfare statement in the plan, which may also address criteria for export.

State Water Plan: This document, in process by the Interstate Stream Commission, may speak to transfers out of certain areas, and set regulations for those transfers.

Acequia Bylaws: Under state law, acequias have powers to adopt bylaws governing the actions of their members with respect to transfers. A bill may be introduced this legislative session to clarify that authority. Although AOO is a geography-based concept, rather than community-based, acequias may be able to exercise power over water transfers through bylaws.

Perspectives: Participants offered their perspectives on the concept. In general, the discussion covered a range of approaches, from allowing the market place to dictate the movement of water to a complete prohibition against transfers of water from an AOO.

Homebuilders: A spokesperson for the homebuilding industry said that it is important for their welfare to maintain access to water in adjacent areas, and with the minimum of red tape.

Acequias: Acequia representatives pointed out that they are already moving to make Area of Origin protection a reality in New Mexico. From their point of view, maintaining control over the water resource is critical to the survival of the acequia communities. Water is a resource tied to the land and the community, and if uses are to be changed, those communities should be the ones to make the choices and receive the benefit.

A distinction was made between AOO protections and measures that would give acequias decision making authority over individual water right transfers.

Pueblos: The area of northern New Mexico covered by the Jemez y Sangre Regional Water Plan has a rich and complex history. It is important that those creating the plan and those who consider implementation of part or all of the plan understand this history and its implications for the future. Pueblo observers in the planning process remind the Council of their unique position in the region. As original inhabitants they have witnessed the arrival of many waves of newcomers and in many cases have been generous neighbors, helping early settlements survive. As subsequent waves have arrived it has been more difficult to accommodate the greater numbers and the increasing competition for resources.

Now, in the beginning of the 21st century, Pueblos and other traditional communities feel threatened by the pressures of growth in the area. Although it seems that other populations move freely around the country, most Pueblo and traditional community people are committed to this

land and its resources. If conditions become too stressful, or resources too scarce, they will not and cannot move elsewhere. They will remain, as they have for hundreds of years. Their historic presence and commitment to the land and resources have guaranteed the survival of a beautiful and unique region. They request that those in decision-making positions understand the need for continued protection of these unique resources – natural, cultural and historic – and that the right of self-determination for these traditional communities be honored.

The group discussed including language in the Regional Water Plan which would express the unique character and values of this region, and that would emphasize the important role of history in the formation of the region – culturally, socially, economically and physically.

Others: Some questioned the validity of prohibiting water from leaving a region. Was it appropriate or necessary, they asked, to preserve the current patterns of population distribution and water use, or should they be subject to the market forces? Others felt that the movement of water was closely related to the distribution of wealth, and should be controlled and regulated in the interest of creating a more equitable society. They were not comfortable with the free market system determining the fate of communities. Because the water movement has such a major impact on the communities that lose the water, they felt that there should be some consensus-based review process to assess the public welfare of the communities.

Models: The group discussed the current negotiations between the Elephant Butte Irrigation District and the City of Las Cruces, where both the agricultural interests and the city are benefiting from reallocation of water from agriculture to urban uses. Salt River Project, originally an irrigation district, now provides water to Phoenix. Ex-farmers are now shareholders, benefiting from the asset as the times changed. There are also examples of the State (ISC) appropriating water for the benefit of a region, as with the Salt Basin near Alamogordo, and a county (Lea County) applying for the reservation of a water right for future use.

There was agreement that an inventory is needed that identifies and describes processes which allow for stakeholder review in the transfer of an article of commerce, such as in the west where AOO protections have been implemented.

Transfers vs. Sales and Leases: Although individuals have the right to sell or lease water rights, the State Engineer must approve transfers from one location to another or one type of use to another. Some advocate that these transfers should protect the area of origin through consideration of social costs and benefits to the exporting region. Some extended that concept to suggest that transfer decisions should result in the redistribution of wealth in some areas, or in subsidies for certain areas. It was acknowledged that minimal water has presently been transferred from agriculture to urban use to date.

There were concerns about the leasing of water, and the difficulty of regaining that water once another user has become dependent on it. It may be desirable to have a drought option system for leasing, where an irrigator only leases during a drought year, when farming is not

productive or financially viable.

Some suggested that an AOO importing water should be limited in the amount or source of water that is imported from another region. Is it fair, they asked, for an area to expect to be supplemented with water from elsewhere, when they have restricted their own water leaving their area. Participants observed that any region which does seek to import from another region should practice serious water conservation measures of its own water resource.

Others noted that AOO protections do not have to imply an absolute prohibition against import of water from another region, but could set up criteria that allow such a transfer to occur. It is not clear whether the priorities of the state would override those of the region. There is danger in a system that provides no limitations on export, as it would set a precedent that would allow the water to be exported out of the state.

Scale Issues: It was suggested that the AOO needs to be big enough to allow for productive negotiations and creative solutions, as between EBID and Las Cruces. John Utton also reported that he is representing a group of acequia associations who have formed a larger geographic organization to have more power over water rights transfers from the upper Chama River region.

During the AOO discussions the group also grappled with the dilemma of where to draw the boundary of an AOO and the implications for the definition of community. The Jemez y Sangre water planning region could be seen as a community of interests sharing the same hydrological basin and the same regional economy. On the other hand, there are clearly communities within that region which are distinct, and which may feel threatened by their relationship with the larger community. How can we handle the different scales of community within our region, participants asked. How can we protect certain fragile or unique areas and maintain the connections which are alive and vital within the region as a whole?

Recommendations: Those present agreed on the following:

- The plan should recognize the long history of many communities in the region and should not work against their long-term interests. An inventory of processes that allow for consensus-based transactions in instances where AOOs have been protected, and mechanisms for that protection, would be very beneficial in further considering AOO protection in this region. The inventory is not restricted to AOOs, but could include any process that allows for a stakeholder or consensus process involving an article of commerce, where the activity may impact the local community.

- The Jemez y Sangre Water Planning Council may incorporate language about consensus-based transactions in the public welfare statement.